HOMELINE®
IMPROVING COMFORT

CBH Basic systems

To learn more about LINAK please visit:
WWW.LINAK.COM

LINAK®
WE IMPROVE YOUR LIFE

Contents

Preface 4

Valid for 5

Important information 6
Safety instructions 6
Safety issues 7
Before installation, re-installation or troubleshooting 8
Before Start-up 8

Repairs 10
Manufacturer's declaration 10

Misc. on the HOMELINE® system 11
Warranty 11
Maintenance 11

ETL-marking 11

Description of the HOMELINE® CBH Basic system 12
Mounting guideline for the CBH 12
Cable relief 13

Disposal of LINAK's products 14
Main groups of disposal 14
Disposal of batteries 14

Labels 15

Drawings 16

Addresses 20

Preface

We are delighted that you have chosen a product from LINAK®.

LINAK systems are high-tech products based on many years of experience in the manufacture and development of actuators, electric control boxes, controls and chargers.

This User Manual does not address the end-user. It is intended as a source of information for the manufacturer of the equipment or system only, and it will tell you how to install, use and maintain your LINAK electronics. It is the responsibility of the manufacturer of the end-use product to provide a User Manual where relevant safety information from this manual is passed on to the end-user.

We are sure that your LINAK product/system will give you many years of problem-free operation.

Before our products leave the factory they undergo full function and quality testing. Should you nevertheless experience problems with your LINAK product/system, you are always welcome to contact your local dealer.

LINAK subsidiaries and some distributors situated all over the world have authorised service centres, which are always ready to help you.

LINAK provides a warranty on all its products. This warranty, however, is subject to correct use in accordance with the specifications, maintenance being done correctly and any repairs being carried out at a service centre, which is authorised to repair LINAK products.

Changes in installation and use of LINAK products/systems can affect their operation and durability. The products are not to be opened by unauthorised personnel.

The User Manual has been written based on our present technical knowledge. We are constantly working on updating the information and we therefore reserve the right to carry out technical modifications.

LINAK A/S

Valid for:

This User Manual is valid for the following products:

(See the first 3 - 5 characters on the label)

Actuators:	LA27, KA20
Control box:	CBH1200B
Power supply:	SMPS001 or SMPS002
Controls:	HB10, HBBRIO02

Important information

Important information on LINAK® products can be found under the following headings:

Warning!
Failure to comply with these instructions may result in accidents involving serious personal injury.

Failing to follow these instructions can result in the product being damaged or being destroyed.

Safety instruction

General

Safe use of the system is possible only when the operating instructions are read completely and the instructions contained are strictly observed.

Failure to comply with instructions marked with the "NOTE" symbol may result in serious damage to the system or one of its components.

It is important for everyone who is to connect, install, or use the systems to have the necessary information and access to this User Manual. Follow the instructions for mounting – risk of injury if these instructions are not followed.

The appliance is not intended for use by young children or infirm persons without supervision.

If there is visible damage on the product it must not be installed.

Note that during construction of applications, in which the actuator is to be fitted, there must be no possibility of personal injury, for example the squeezing of fingers or arms.

Only the power supply type SMPS001 or SMPS002, shall be used with the system (CBH basic System).
The power supply shall not be covered while operating to allow sufficient cooling of this appliance.

...to be continued

The appliance is only to be used with the power supply unit provided with the appliance.

Furthermore take care about the connecting wires from the power supply to the CBH Basic System, don't damage this by overrun.

Assure free space for movement of application in both directions to avoid blockade.

Safety issues

The builder of the equipment shall ensure that the use of the component complies with relevant standards – like the Machine Directive. Care must be taken to avoid squeezing of cables as it can cause movement of the system!

The SMPS001/002 must not be packed in heat insulating material, but must be placed so that it can emit waste heat to the surroundings. There are no ventilation holes to consider, the SMPS emits heat through its surface.

Only the power supply type SMPS001 or SMPS002, or similar suited products meeting the requirements EN 60335-1, shall be used with the system (CBH basic System).

Please observe that the actuators LA27 used for CBH Basic systems are with signal end-stop switches and are not compatible with CBH Advanced systems

The SMPS006 is not compatible with the CBH Basic system. The system is only released to 24V DC (SMPS006 = 29V DC)

It is possible only to use 1 power supply (SMPS001 or SMPS002) for 2 CBH systems. Remember speed may decrease when running 2 systems at the same time.

Before installation, re-installation, or troubleshooting:

- Stop the actuators
- Pull out the mains plug.
- Relieve the actuators of any loads, which may be released during the work.

Before start-up:

- Make sure that the system has been installed as instructed in this User Manual.
- Make sure that the voltage of the control box/SMPS is correct before the system is connected to the mains.
- System connection. The individual parts must be connected before the control box/SMPS is connected to the mains. See the User Manual for LINAK actuators, if necessary.

During operation

- If the control box makes unusual noise or smells, switch off the mains voltage immediately.
- Take care that the cables are not damaged.
- The products must only be used in an environment, that corresponds to their IP protection.

Misc.

The actuator system has a sound level below 70dB(A) in typical applications.

Updated manuals and declarations can always be found here:
www.linak.com/homeline

Only for EU markets

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

Only for Non EU markets

Persons who do not have the necessary experience or knowledge of the product/products must not use the product/products. Besides, persons with reduced physical, sensory or mental abilities must not use the product/products, unless they are under surveillance or they have been thoroughly instructed in the use of the apparatus by a person who is responsible for the safety of these persons.

Moreover, children must be under surveillance to ensure that they do not play with the product.

Misuse

Do not overload the actuators – this can cause danger of personal injury and damage to the system.

Do not use the actuator system for lifting persons. Do not sit or stand on a table while operating – risk of personal injury.

Do not use the system in environments other than the intended indoor use

Repairs

In order to avoid the risk of malfunction, all HOMELINE® repairs must only be carried out by authorised LINAK® workshops or repairers, as special tools must be used and special gaskets must be fitted. Lifting units under warranty must also be returned to authorised LINAK workshops.

Warning!
If any of the HOMELINE® products are opened, there will be a risk of subsequent malfunction.

DECLARATION OF INCORPORATION OF PARTLY COMPLETED MACHINERY

LINAK A/S
Smedevænget 8
DK - 6430 Nordborg

Herewith declares that LINAK HOMELINE® products as characterized by the following models and types:

Control Boxes	CB7, CB9H, CBH Advanced, CBH Basic
And	
Linear Actuators	LA27, LA27CS, LA28, LA29, LA31 HOMELINE
Dual Actuators	TD1, TD3
And	
Controls	HB10, HB10RF, HB20, HB20RF, HB40, HB60, HC10, HC10RF, HC20RF,
And	
Accessories	DC CONNECTOR, DJBH, LED Lightbox, Lightplug001, Massage Motor, SMPS001, SMPS002, TR6, USB Connector

comply with the following parts of the Machinery Directive 2006/42/EC, ANNEX I, *Essential health and safety requirements relating to the design and construction of machinery*:

1.5.1 Electricity supply

The relevant technical documentation is compiled in accordance with part B of Annex VII and that this documentation or part hereof will be transmitted by post or electronically to a reasoned request by the national authorities.

This partly completed machinery must not be put into service until the final machinery into which it is to be incorporated has been declared in conformity with the provisions of the Machinery Directive 2006/42/EC where appropriate.

Nordborg, 2014-10-09

LINAK A/S
John Kling, B.Sc.E.E.
Certification and Regulatory Affairs
Authorized to compile the relevant technical documentation

Original Declaration

Misc. on the HOMELINE® system

Warranty
There is a 36 months' warranty on the HOMELINE products CBH Basic Systems against manufacturing faults from the production date of the individual products (see label). LINAK A/S' warranty is only valid in so far as the equipment has been used and maintained correctly and has not been tampered with. Furthermore, the system must not be exposed to violent treatment. In the event of this, the warranty will be ineffective/invalid. For further details, please see LINAK A/S' ordinary conditions of sale.

Maintenance
Clean dust and dirt on the outside of the system at appropriate intervals and inspect for damage and breaks. Inspect the connections, cables, and plugs and check for correct functioning as well as fixing points.

The cleaners and disinfectants must not be highly alkaline or acidic (pH value 6-8).

ETL-marking

Due to space limitations, the complete ETL-marking demands are not represented on the marking plates.

The full ETL Recognized Component markings are shown here.

C/N 120690
Conforms to UL962
Cert. to CSA Std. C22.2 No. 68-09
ETL Recognized Component mark for Canada and United States

C/N 9901916
Conforms to UL962
Cert. to CSA Std. C22.2 No. 68-09
ETL Recognized Component mark for Canada and United States

C/N 4008003
Conforms to UL962
Cert. to CSA Std. C22.2 No. 68-09
ETL Recognized Component mark for Canada and United States

C/N 4008005
Conforms to UL962
Cert. to CSA Std. C22.2 No. 68-09
ETL Recognized Component mark for Canada and United States

C/N 4008671
Conforms to UL962
Cert. to CSA Std. C22.2 No. 68-09
ETL Recognized Component mark for Canada and United States

Description of the HOMELINE® CBH Basic system

A CBH Basic system consists of:

- CBH Basic control box
- SMPS001 or SMPS002 power supply
- LA27 linear actuator
- HB10 handset

Mounting guidelines for the CBH
The control box is to be fastened with 2 screws with a head diameter between ø 8 and ø 10 mm. With regard to the surface pressure, ø 10 mm is preferable. See drawing for placing of mounting holes and the space the CBH takes up.

The mounting surface to which the control box is attached should have a surface evenness better than ± 0.5 mm.

The mounting screws on the control box must be fastened with a max. torque of 1 Nm.

The CBH must not be packed in heat insulating material, but must be placed so that it can emit waste heat to the surroundings. There are no ventilation holes to consider, the CBH emits heat through its surface.

The electric connection:
The system is to be connected as follows:
- Each linear actuator must be connected to the socket on the control box by means of the motor cable, which has a 6-pin plug in each end.
- The control is to be connected on the opposite same side of the control box as the actuators.
- Finally, connect the SMPS unit to the CBH via a DC port.

Please note that the control box/SMPS must only be connected to the voltage stated on the labels.

The LA27 actuator is a powerful actuator designed for applications such as leisure beds.

Mechanical spline:
The splines function so that the actuator can only push, not pull. During pull in the actuator, the inner tube is lifted off the thread bush, and the actuator can therefore never pull a load, only push.

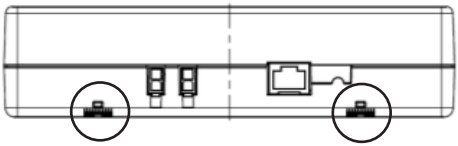
Functional test of mechanical splines:
When the piston rod is at the innermost position, it must be possible to pull it out manually to its full travel length and to press it in again without much resistance and without using the motor. If this is not possible, contact your nearest LINAK dealer.

Usage:
- Duty cycle: 2/18; 2 minutes continuous use followed by 18 minutes not in use
- Ambient temperature: +5°C to +40°C (the actuator must also be at this temp.)

Warning!

- If the actuator does not work as described above, the risk of injury due to squeezing can arise. The actuator must therefore immediately be sent for service at the nearest, authorised LINAK workshop.
- Do only use the actuator within specified working limits.
- Do not sideload the actuator.

Cable relief:
The CBH features a cable relief option. By using these small holes on the CBH, you can tie the DC cables from the SMPS unit to the control box by use of standard cable ties.



The circles illustrate the small holes on the control box where a standard cable tie can be mounted and the DC cable from the SMPS/Handset cable can be fixed.

The extra cable tie length is just cut off when the cables have been fixed.

The CBH is a ZERO™ control box
A hallmark of the CBH ZERO platform is the very low power consumption in standby mode, saving energy and money. The low standby consumption is standard.

Disposal of LINAK's products

As LINAK's customers often ask us how our products can be disposed of or scrapped we have prepared this guidance that enables a classification to different waste fractions for recycling or combustion.

Guidance

We recommend that our products be disassembled as much as possible and divided into different waste groups for recycling or combustion.
For example, waste can be sorted into metals, plastics, cable scrap, combustible material and recoverable resources.
Some of these main groups can be further divided into subgroups; e.g. metal can be divided into steel/ aluminium/copper and plastic can be divided into ABS/PA/PE/PP.
As an example, the table below breaks down the different components in LINAK products to various recycling groups:

Product	Components	Recycling group
Column/ Actuator :	Spindle and motor Plastic housing Cable PC boards	Metal scrap Plastic recycling or combustion Cable scrap or combustion Electronics scrap
Control Box :	PC boards Plastic housing Cable Transformer	Electronics scrap Plastic recycling or combustion Cable scrap or combustion Metal scrap
Handset/Control :	Plastic housing Cable PC boards	Plastic recycling or combustion Cable scrap or combustion Electronics scrap

By now, almost all our casted plastic parts are supplied with an interior code for plastic types and fibre contents, if any.

Main groups of disposal

Product main groups	Metal scrap	Cable scrap	Electronics scrap	Plastic recycling or combustin	Comments
LA27, KA20	X	X	X	X	
CBH1200B			X	X	
SMPS001, SMPS002			X	X	
HB10, HBBRIO02		X	X	X	

Disposal of batteries

Details regarding safe disposal of used and leaking batteries:
Batteries should be disposed in accordance with appropriate federal, state and local regulations. LINAK recommends that used or leaking batteries are disposed through local recycling systems. Please do not throw used or leaking batteries in normal household waste or in nature. This will cause damage to the enviroment.

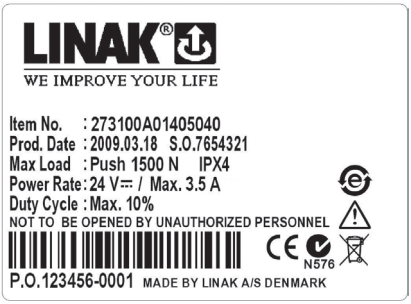
How to deal with leaking batteries

Leaking batteries should be disposed as described above.
If leaking batteries are discovered in the product, the batteries must be removed at once to minimise damage to the product. If leaking batteries are left in the product, it might become defective.
It is recommended to use plastic gloves when handling leaking batteries. The contents of leaking batteries can cause chemical burns and respiratory irritation.
If exposed to the contents of a leaking battery, please wash with soap and water. If irritation persists, please seek medical attention. In case of eye contact, please flush eyes thoroughly with water for 15 minutes and seek medical attention.

Labels

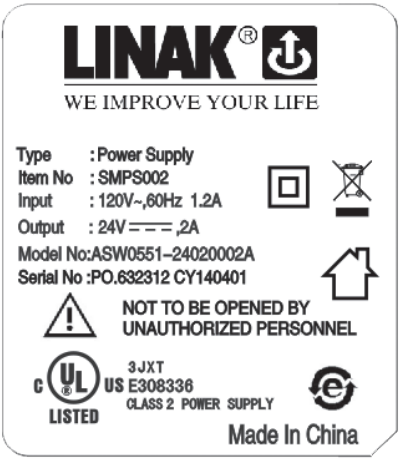
Label for CBH Basic

Label for LA27


LINAK®
WE IMPROVE YOUR LIFE
Item No. : 273100A01405040
Prod. Date : 2009.03.18 S.O.7654321
Max Load : Push 1500 N IPX4
Power Rate : 24 V⎓ / Max. 3.5 A
Duty Cycle : Max. 10%
NOT TO BE OPENED BY UNAUTHORIZED PERSONNEL
N576
P.O.123456-0001 MADE BY LINAK A/S DENMARK

Label for SMPS001

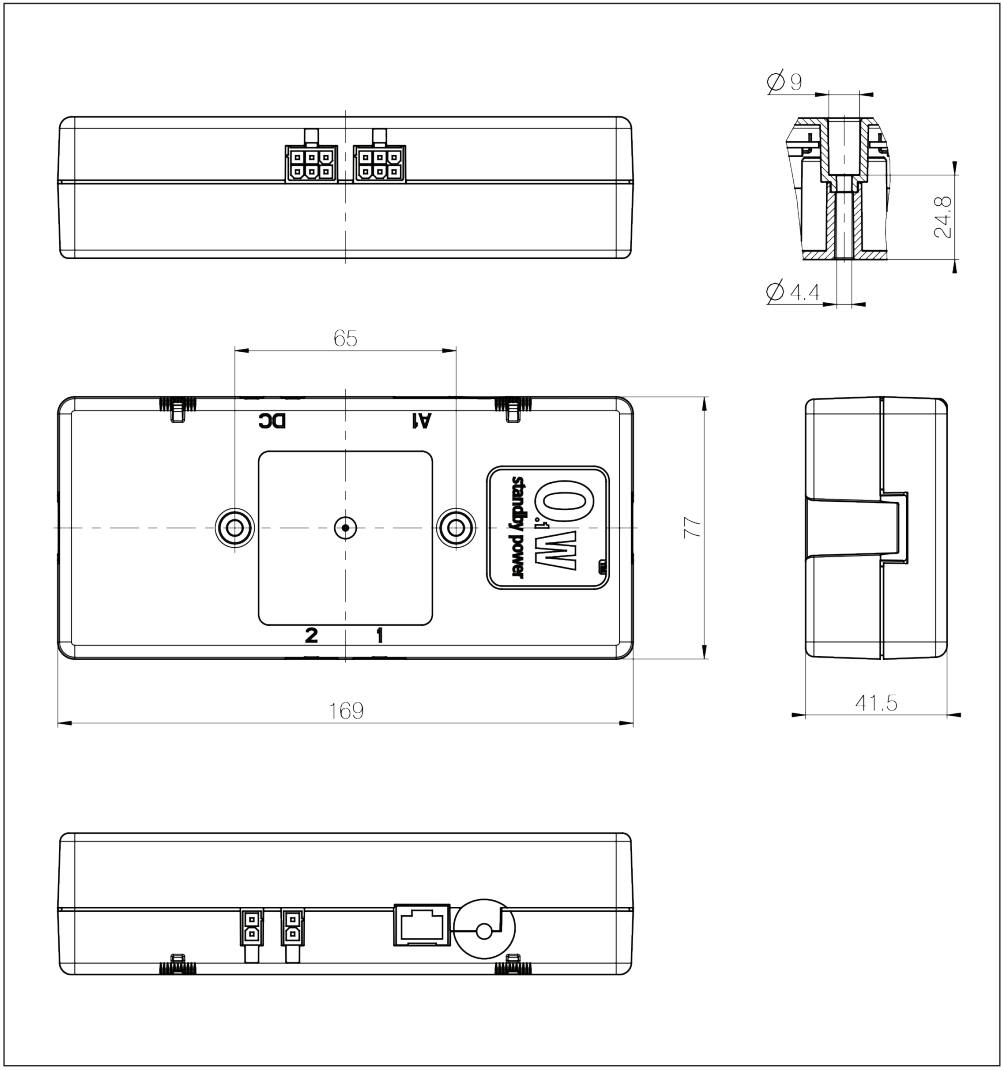
Label for SMPS002



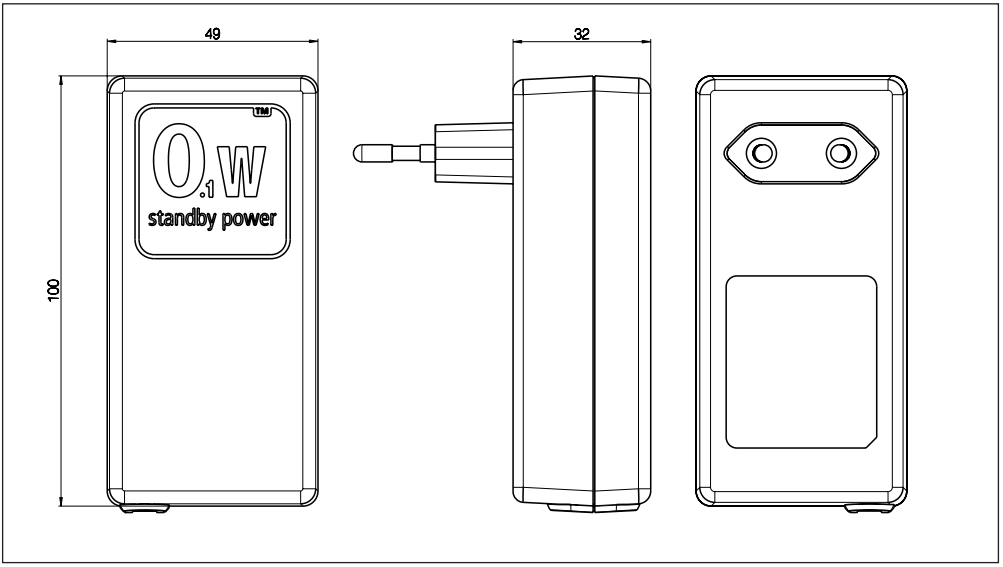
Label for the Handset HB12

DRAWING APPENDIX

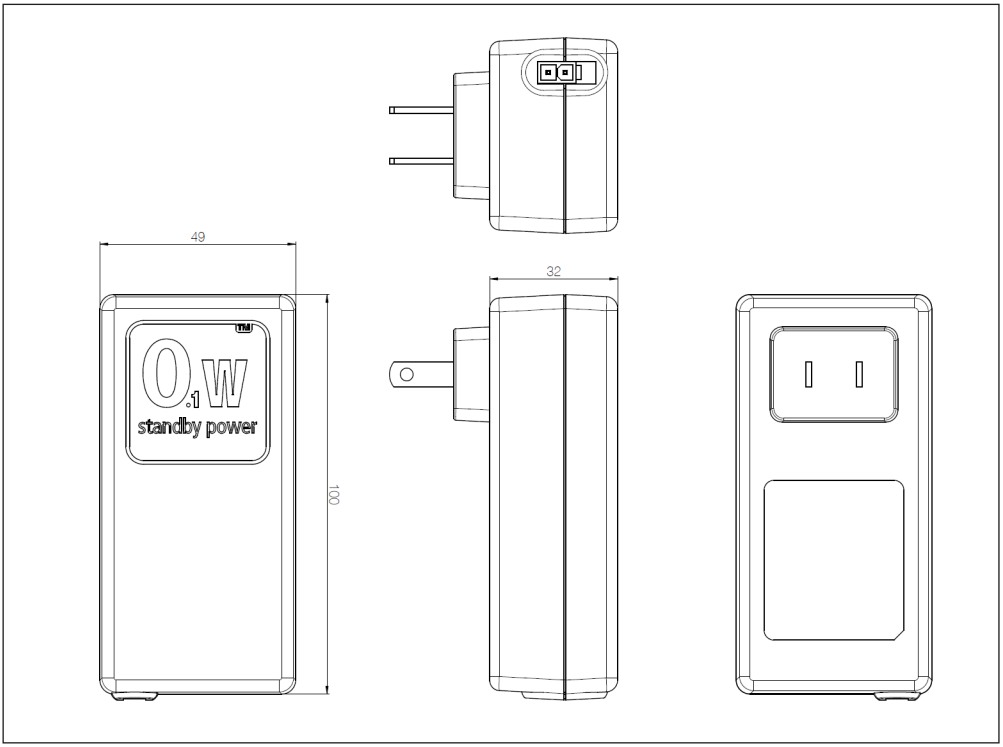
CBH Basic



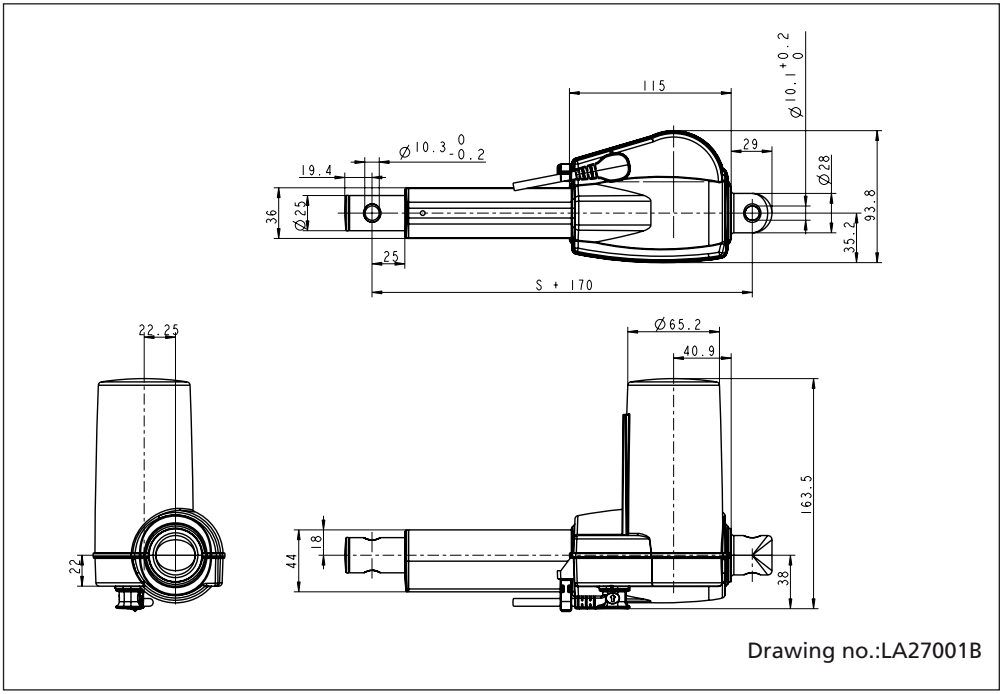
SMPS001



SMPS002

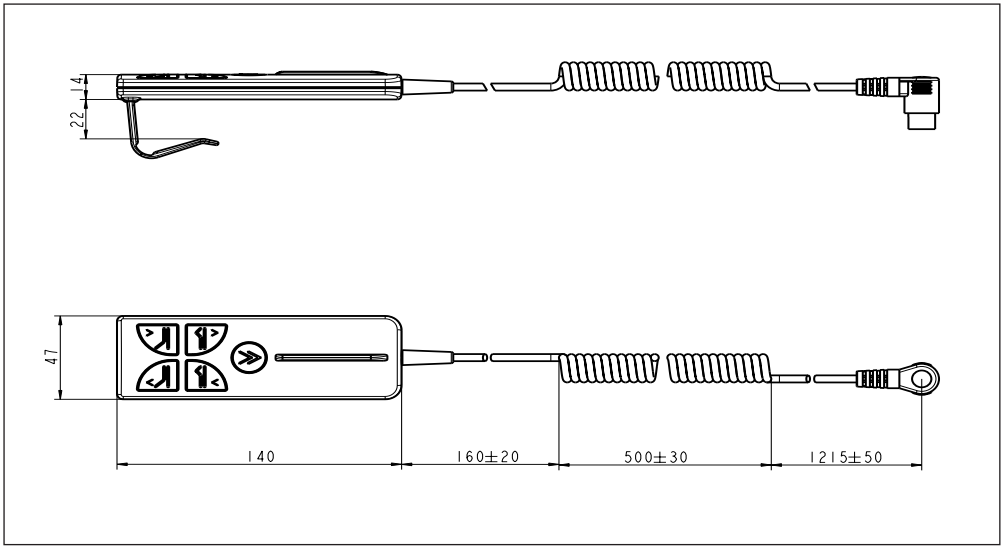


LA27



Drawing no.:LA27001B

HB 10 with cable



LINAK APPLICATION POLICY

The purpose of the application policy is to define areas of responsibilities in relation to applying a LINAK product defined as hardware, software, technical advice, etc. related to an existing or new customer application.

LINAK products as defined above are applicable for a wide range of applications within the Medical, Furniture, Desk and Industry areas. Yet, LINAK cannot know all the conditions under which LINAK products will be installed, used, and operated, as each individual application is unique.

The suitability and functionality of the LINAK product and its performance under varying conditions (application, vibration, load, humidity, temperature, frequency, etc.) can only be verified by testing, and shall ultimately be the responsibility of the LINAK customer using any LINAK product.

LINAK shall be responsible solely that the LINAK products comply with the specifications set out by LINAK and it shall be the responsibility of the LINAK customer to ensure that the specific LINAK product can be used for the application in question.

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